Application Number: 09/855,001
Reply to O.A. of April 8, 2003

Docket No.: 14036

AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1-36 (withdrawn)

37. (currently amended) A seal comprising a housing structure adapted to surround a shaft, wherein the housing structure comprises a ~~filtering~~ means for preventing foreign material from entering the sealed area.

38. (original) The seal of claim 37, wherein the housing structure comprises a sleeve, a casing, and a faceplate, wherein the faceplate is operably coupled to the sleeve.

39. (previously presented) A method for sealing a dynamic shaft assembly containing a bore for receiving a seal, comprising:

providing a seal having a faceplate and at least one filtering structure between an inner and an outer portion of the seal that substantially limits foreign particles from entering the seal, wherein the faceplate is operably coupled to the inner portion; and

placing the seal into the bore.

40. (original) The method of claim 39, wherein the seal further comprises a first flange extending radially inwardly from the outer portion, and a perimeter lip extending radially inwardly from the first flange.

41. (original) The method of claim 40, wherein the at least one structure and the perimeter lip are constructed of elastomeric material.

42. (original) The method of claim 39, wherein the seal further comprises a main sealing lip.

43. (original) The method of claim 42, wherein the main sealing lip is biased.

44. (original) The method of claim 43, wherein the main sealing lip is biased with a garter spring.

45. (original) The method of claim 39, wherein the seal further comprises at least one excluder lip.

46. (original) The method of claim 39, wherein the seal further comprises a second flange extending radially outwardly from, and generally perpendicular to, the inner portion.

47. (original) The method of claim 39, wherein the inner portion has a bore that is coated with an elastomeric coating.

48. (original) The method of claim 39, wherein the outer portion is covered with an elastomeric coating.

49. (previously presented) A seal for sealing a dynamic shaft assembly, comprising:

a sleeve adapted to be disposed generally coaxially around a shaft;

a casing adapted to be generally arranged to surround the sleeve;

a faceplate, located between the sleeve and the casing, having an inside face and an outside face, the faceplate generally perpendicular to the sleeve; and

a filtering material portion, wherein the filtering material portion contacts the inside face of the faceplate and forms a filtering barrier between the faceplate and the sleeve.

50. (original) The seal of claim 49, further comprising a first flange extending radially outwardly form the sleeve.

51. (original) The seal of claim 50, further comprising at least one flexible member extending radially outwardly from the first flange.

52. (original) The seal of claim 51, wherein the at least one flexible member is made at least in part with an elastomeric material.

53. (original) The seal of claim 51, further comprising a perimeter lip extending axially inward from the flange.

54. (original) The seal of claim 53, wherein the perimeter lip is constructed at least in part with an elastomeric material.

55. (original) The seal of claim 49, wherein the filtering material portion is felt.

56. (original) The seal of claim 49, wherein the filtering material portion is a synthetic filtering material.

57. (original) The seal of claim 49, further comprising a main sealing lip in contact with the sleeve.

58. (original) The seal of claim 57, wherein the main sealing lip is made at least in part with an elastomeric material.

59. (original) The seal of claim 57, wherein the main sealing lip is biased.

60. (original) The seal of claim 59, wherein the main sealing lip is biased with a garter spring.

61. (original) The seal of claim 49, further comprising a second flange extending radially inwardly from the casing.

Claims 62-63 (withdrawn)

64. (new) A method for sealing a dynamic shaft assembly containing a bore for receiving a seal, comprising:

providing a seal having

a faceplate with an inside face and an outside face,

an inner portion with a first flange extending radially outwardly from, and generally perpendicular to, the inner portion, the first flange having an inside face and an outside face,

an outer portion generally surrounding the inner portion, and

at least one filtering structure between the outside face of the first flange and the inside face of the faceplate that substantially limits foreign particles from entering the seal; and

placing the seal into the bore.

65. (new) The method of claim 64, wherein the seal further comprises a second flange extending radially inwardly from the outer portion, and a perimeter lip extending radially inwardly from the first flange.

66. (new) The method of claim 65, wherein the at least one structure and the perimeter lip are constructed of elastomeric material.

67. (new) The method of claim 64, wherein the seal further comprises a main sealing lip.

68. (new) The method of claim 67, wherein the main sealing lip is biased.

69. (new) The method of claim 68, wherein the main sealing lip is biased with a garter spring.

70. (new) The method of claim 64, wherein the seal further comprises at least one excluder lip.

71. (new) The method of claim 64, wherein the inner portion has a bore that is coated with an elastomeric coating.

72. (new) The method of claim 64, wherein the outer portion is covered with an elastomeric coating.

73. (new) A seal for sealing a dynamic shaft assembly, comprising:

a sleeve adapted to be disposed generally coaxially around a shaft and including a sleeve flange extending radially outwardly from the sleeve, the sleeve flange having an inside face and an outside face;

a casing adapted to be generally arranged to surround the sleeve;

a faceplate having an inside face and an outside face, the faceplate generally perpendicular to the sleeve; and

a filtering material portion, wherein the filtering material portion forms a filtering barrier between the inside face of the faceplate and the outside face of the sleeve flange.

74. (new) The seal of claim 73, further comprising at least one flexible member extending radially outwardly from the sleeve flange.

75. (new) The seal of claim 74, wherein the at least one flexible member is made at least in part with an elastomeric material.

76. (new) The seal of claim 74, further comprising a perimeter lip extending axially inward from the sleeve flange.

77. (new) The seal of claim 76, wherein the perimeter lip is constructed at least in part with an elastomeric material.

NO 78. (new) The seal of claim 73, wherein the filtering material portion is felt.

79. (new) The seal of claim 73, wherein the filtering material portion is a synthetic filtering material.

80. (new) The seal of claim 73, further comprising a main sealing lip in contact with the sleeve.

81. (new) The seal of claim 80, wherein the main sealing lip is made at least in part with an elastomeric material.

82. (new) The seal of claim 80, wherein the main sealing lip is biased.

83. (new) The seal of claim 82, wherein the main sealing lip is biased with a garter spring.

84. (new) The seal of claim 73, further comprising a flange extending radially inwardly from the casing.

85. (new) A seal for sealing a dynamic shaft assembly, comprising:

a sleeve adapted to be disposed generally coaxially around a shaft;

a casing adapted to be generally arranged to surround the sleeve;

a faceplate, located between the sleeve and the casing, having an inside face and an outside face, the faceplate generally perpendicular to the sleeve; and

a filtering material portion, wherein the filtering material portion contacts the inside face of the faceplate, rotationally displaces relative to the face plate, and forms a filtering barrier between the faceplate and the sleeve.

86. (new) The seal of claim 85, further comprising a first flange extending radially outwardly form the sleeve.

87. (new) The seal of claim 86,further comprising at least one flexible member extending radially outwardly from the first flange.

88. (new) The seal of claim 87, wherein the at least one flexible member is made at least in part with an elastomeric material.

89. (new) The seal of claim 87, further comprising a perimeter lip extending axially inward from the flange.

90. (new) The seal of claim 89, wherein the perimeter lip is constructed at least in part with an elastomeric material.

NO 91. (new) The seal of claim 85, wherein the filtering material portion is felt.

92. (new) The seal of claim 85, wherein the filtering material portion is a synthetic filtering material.

93. (new) The seal of claim 85, further comprising a main sealing lip in contact with the sleeve.

94. (new) The seal of claim 93, wherein the main sealing lip is made at least in part with an elastomeric material.

95. (new) The seal of claim 93, wherein the main sealing lip is biased.

96. (new) The seal of claim 95, wherein the main sealing lip is biased with a garter spring.

97. (new) The seal of claim 85, further comprising a second flange extending radially inwardly from the casing.

98. (new) A seal for sealing a dynamic shaft assembly, comprising:

a sleeve adapted to be disposed generally coaxially around a shaft, the sleeve comprising a flange extending radially outwardly from the sleeve;

a casing adapted to be generally arranged to surround the sleeve;

a faceplate, located between the sleeve and the casing, having an inside face and an outside face, the faceplate generally perpendicular to the sleeve; and

a filtering material portion, wherein the filtering material portion contacts the flange and the inside face of the faceplate, rotationally displaces relative to the flange, and forms a filtering barrier between the faceplate and the sleeve.

99. (new) The seal of claim 98, further comprising at least one flexible member extending radially outwardly from the flange.

100. (new) The seal of claim 99, further comprising a perimeter lip extending axially inward from the flange.

101. (new) The seal of claim 98, further comprising a main sealing lip in contact with the sleeve.

102. (new) The seal of claim 98, further comprising a second flange extending radially inwardly from the casing.